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ABSTRACT

The 42 teachers enrolled in a graduate reading course participated in a study examining the application of the Rauding Scale and the SEER technique, two global readability procedures. After a lecture on the topic of readability, the teachers rated eight passages with both readability formulas, and these ratings were compared to the predetermined readability ratings according to Spache of Dale-Chall formulas. The results were as follows: the Rauding and SEER techniques did not result in similar readability ratings, although they both ranked the passages in a reasonably consistent order with the Spache/Dale-Chall ratings. There appeared to be little difference in the ratings of beginning or experienced teachers; neither technique seemed to favor a particular experience level group in a statistically significant manner. The SEER ratings are more highly correlated to the Spache and Dale-Chall formulas, and appear to be a reasonable alternative to those formulas if several raters are employed. (RL)

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Rauding and SEERing:

Judging Global Readability

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Rauding and SEERing: Judging Global Readability

Estimating the difficulty of reading materials is an important teacher function. Readability procedures have varied from detailed (Dale-Chall, Spache, Bormuth), to simple (Fry, McLaughlin, Raygor, Baldwin and Kaufman) to linguistic, (Granowsky and Botel) to global (Carver, Singer), and each procedure has claimed either reliability, validity or calculation ease as an advantage.

Because of the validity and the calculation ease reported by two global readability procedures, the Rauding Scale (Carver, 1976) and the SEER technique (Singer, 1975), this study sought to examine the application of these procedures by classroom teachers. More specifically, the questions asked were:

a. Are the mean ratings using the Rauding and the SEER technique practically and statistically in reasonable agreement?

2. Do teachers with varying amounts of teaching experience rate passages differently?

3. How do Rauding and SEER ratings compare with ratings based on the Spache or Dale-Chall formula?

Sample

The forty-two teachers enrolled in a fifth-year level university reading course who had completed both sets of ratings were included in the study. Their teaching experience ranged from two to twenty years and the following frequency distribution was used in the analysis:

Experience in Years	Frequency
2	5
3	7
4	7
5	4
6 - 10	8
11 - 15	7
16 - 20	4

A 2½ hour lecture on the topic of readability had preceded the rating sessions. The lecture included information about the development of readability formulas, factors of readability, accuracy of the formulas, sources of readability information and special areas of concern (i.e. content areas, examinations). In addition each teacher was required to calculate the readability of a textbook and a tradebook using the Spache formula for primary level materials and the Dale-Chall formula for the intermediate levels and above.

Information about the Rauding and the SEER techniques was presented as part of the above mentioned lecture.

Methodology

The eight passages were taken from Singer's (1975) "unknown paragraphs" but rearranged randomly in two ways (6, 8, 2, 5, 7, 3, 1, 4, and 7, 4, 6, 5, 1, 8, 3, 2) so as to make two forms. An answer sheet with blanks numbered one to eight was provided along with the passages and the criterion passages.

Directions to teachers followed the instructions given by Singer and by Carver in their respective journal articles except that only one rating was possible for each passage rather than the three suggested by Carver. (The reader could take the means in the Table 1 as better predictors if desired.)

One week the teachers were asked to rate the passages by the SEER technique, the next week by the Rauding index. It was recognized that order effect could not be ruled out by this procedure; however, it was not considered to be an important factor.

An SOL factorial analysis of variance program which could handle unequal replications per cell was used to analyze the data.

Findings

Table 1 presents the mean rating by the SEER and the Rauding Techniques along with the predetermined readability ratings (Spache or Dale-Chall). The ANOVA results indicated that except for passages #4 (Original paragraph beginning: Several times...) all the remaining passages had statistically significantly different ratings by the two techniques.

The answer to the first question is therefore: No, the Rauding and the SEER technique do not result in similar readability ratings.

A rank order correlation of -0.548 was found between the SEER and Rauding ratings; 0.881 between the SEER and the Spache/Chall ratings; and -0.762 between the Rauding and the Spache/Chall ratings when mean ratings for all eight passages were considered. This comparison is perhaps the fairer one to the Rauding procedure since it suggests using the average of

TABLE 1

PASSAGE, FORMULA MEANS AND ANOVA RESULTS

	Passage	1		2		3		4		5		6		7		8	
	Formula	S	R	S	R	S	R	S	R	S	R	S	R	S	R	S	R
Experience in years	2	4.44	1.40	5.34	1.60	1.90	4.75	4.08	4.68	4.30	1.80	2.06	3.00	2.64	5.40	4.48	4.00
	3	4.00	1.57	5.57	1.86	2.16	4.57	5.34	4.71	4.43	2.00	2.47	4.14	2.46	5.71	5.23	4.29
	4	4.13	1.57	5.34	2.71	1.57	5.29	4.19	5.29	5.41	2.71	2.70	4.57	2.54	7.14	5.40	4.86
	5	4.33	2.75	5.10	2.50	1.68	4.00	5.43	5.25	4.78	2.25	2.48	3.75	2.55	6.00	5.03	4.75
	6 - 10	4.15	1.13	6.46	1.75	2.16	5.75	4.66	4.38	5.14	2.38	2.81	4.38	2.21	6.00	4.93	4.25
	11 - 15	4.21	2.29	5.24	2.29	1.79	4.29	4.60	4.71	4.61	3.00	2.47	4.00	2.34	5.43	5.11	4.43
	16 - 20	4.40	1.50	6.00	1.25	4.25	4.25	4.98	4.50	4.18	2.50	2.80	4.50	2.10	5.25	5.38	3.75
	Grand Means	4.23	1.74	5.58	1.99	2.22	4.70	4.75	4.79	5.69	2.38	2.54	4.05	2.41	5.85	5.08	4.33
	Formula F df = 1,6	114.53**		170.47**		172.66**		0.02		98.55*		39.00**		241.58**		7.89*	
Experience	Exp. F df = 6,6	0.98		0.37		3.91		0.73		1.37		1.56		1.57		0.63	
Interaction	Inter. F df = 6,70	0.84		1.56		6.04		0.68		0.59		0.24		1.05		0.39	
	S or D-C	4.8		6.4		2.1		4.5		5.9		3.0		1.8		3.8	

** Significant at .01 level
* Significant at .05 level

three ratings as a means of establishing grade difficulty.

The second question dealt with differences in ratings by teachers with varying amounts of experience. Table 1 indicates that the ANOVA results are not significant for any of the eight passages rated. The amount of teaching experience does not appear to affect the accuracy of the ratings in a statistically significant fashion. This conclusion is further supported by the fact that no significant interaction effects were found between the amount of teaching experience and the formula used.

Do the global readability ratings compare favorably with the readability predictions from the Spache/Dale-Chall formulas? Table 1 lists grand means (the mean rating of all 42 subjects for each passage) and the Spache or Dale-Chall ratings (provided by Singer, 1975). Even a visual inspection reveals a reasonably close relationship between the SEER and the Spache/Chall ratings (rho = 0.881). The Rauding ratings appear to result in a reciprocal ordering (rho = -0.762).

The answer to the last question depends somewhat on which criterion variable one is willing to accept. If the Spache/Chall ratings are chosen, then the SEER technique is most agreement. However, the dangers in accepting Dale-Chall ratings have been discussed elsewhere (Froese, 1976).

Discussion and Conclusions

Since this study examined only the ratings of eight passages it cannot be considered representative of rating all types of materials. However it may be said that the SEER and the Rauding technique do not produce similar ratings on these passages although they both rank them in a reasonably

consistent order when the Spache/Chall ratings are taken as the criterion variables. However, it should be noted that the range of passages is small (1.8 to 6.4).

There appears to be little difference in the ratings of beginning or experienced teachers, and neither technique seems to favor a particular experience level group in a statistically significant manner.

If the Spache and Dale-Chall formulas are accepted as the criterion variable, then the SEER ratings are highly correlated (rho = 0.881), and appear to be a reasonable alternative if several raters are employed. The ratings of individual passages vary considerably (a visual inspection indicates that a standard deviation of approximately 1.5 is rather typical) and hence it remains to be shown that reasonable consistency may be maintained for a single rating of a particular passage.

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